

XII. REFERENCES and RESEARCH ANTHOLOGY

ERROR! REFERENCE SOURCE NOT FOUND. XII A. **Section 1:**

Individual Research Studies

Listing the symptoms or bio-effects found, categorized by country. The studies are divided by Field population studies and Lab controlled exposures

XII A. 1) FIELD POPULATION STUDIES

Symptomatic, neurobehavioral, reproductive, cardiovascular and health changes effecting populations living either in close proximity to RF transmitters or in personal contact with radiofrequency /microwave emitting devices and facilities. Sleep & neurological issues are highly correlated with wireless RF/microwave exposures

France, 2002: [multiple symptoms – sleep problems, headaches, irritability, depression, nausea, loss of memory, dizziness](#) ; *‘Investigation on the health of people living near mobile telephone relay stations: I/Incidence according to distance and sex’*; Santini R, Santini P, Danze JM, Le Ruz P, Seigne M.; France, 2002; Institut national des sciences appliquées, laboratoire de biochimie-pharmacologie, bâtiment Louis Pasteur

Spain, 2002: [sleep, concentraton, headaches, irritability, fatigue, appetite loss](#), cardiovascular disorders; *The Microwave Syndrome- Further Aspects of a Spanish Study*’; Oberfeld Gerd1, Navarro A. Enrique, Portoles Manuel, Maestu Ceferino, Gomez-Perretta Claudio; Public Health Department Salzburg, Austria, University Hospital La Fe, Valencia, Department of Applied Physics, University Valencia,

Egypt, 2005: [headache, memory changes., dizziness, tremors, depressive symptoms , sleep disturbance](#) ; *‘Neurobehavioral effects among inhabitants around mobile phone base stations’*; G. Abdel-Rassoul *, O. Abou El-Fateh, M. Abou Salem, A. Michael, F. Farahat, M. El-Batanouny, E. Salem; Community, Environmental and Occupational Medicine Department, Faculty of Medicine, Menoufiya University, Shebin El-Kom

Egypt 2012: Young adult volunteers show [reductions in hormonal levels and plasma proteins](#) : ACTH, serum cortisol, female prolactin levels, thyroid hormones especially T3 and testorone in males due to long term exposure to RF sources.

How does long term exposure to base stations and mobile phones affect human hormone profiles? Clinical Biochemistry, Volume 45, Issues 1–2, **January 2012**, Pages 157-161, Emad F. Eskander, Selim F. Estefan, Ahmed A. Abd-Rabou

Israel, 2004 – [A four-fold increase in the incidence of cancer](#) tower for between 3 and 7 years was detected. among residents living near a mobile phone installation
Increased Incidence of Cancer near a Cell –Phone Transmitter Station; Ronni Wolf MD, Danny Wolf MD; The Dermatology Unit, Kaplan Medical Center, Rechovot, and the Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv

Austria, 2005: [headaches, perceptual speed increased](#) while accuracy went down; *Subjective symptoms, sleeping problems, and cognitive performance in subjects living near mobile phone base stations*; H-P Hutter, H Moshhammer, P Wallner, and M Kundi; Institute of Environmental Health, Medical University of Vienna, Austria; 2005

Bavaria, 2010: [sleep, depression, greater infections, skin and cardiovascular problems, visual & auditory changes and greater gastrointestinal problems](#); (*Cell phone radiation is from Cellular base stations – read article*)
‘Specific Health Symptoms from Cell Phone Radiation Frequencies in Selbitz (Bavaria, Germany)— Evidence of a Dose-Response Relationship’(*Cell phone radiation is from Cellular base stations – read article*) ; Horst Eger and Manfred Jahn; Bavarian Municipality of Selbitz; 2010

Poland, 2004: residents living close to cell tower sites reported more [circulatory problems, sleep disturbances, irritability, depression, blurred vision, and concentration difficulties](#)
Subjective symptoms reported by people living in the vicinity of cellular phone base stations: review; Bortkiewicz A, Zmysłony M, Szyjowska A, Gadzicka E; Med Pr. 2004;55(4):345-51

Switzerland, 1996: [sleep effected, decrease melatonin levels](#) ;
‘Effect of short-wave (6-22 MHz) magnetic fields on sleep quality and melatonin cycle in humans: the Schwarzenburg shut-down study’; Altpeter ES, Rössli M, Battaglia M, et al.; Source Department of Social and Preventive Medicine, University of Berne; 1996

Bulgaria, 2006: [higher blood pressure and cholesterol changes in TV & broadcasting workers](#)
‘Cardiovascular risk in operators under radiofrequency electromagnetic radiation’; Vangelova K, Deyanov C, Israel M.; Source National Center of Public Health Protection; 2006

Denmark, 2008: [behavioral problems and hyperactivity in children](#) of mothers using cell phones during pregnancy and afterward
Prenatal and postnatal exposure to cell phone use and behavioral problems in children; Divan HA, Kheifets L, Obel C, Olsen J.; Source Department of Epidemiology, UCLA School of Public Health, University of California; 2008

Australia, 2009 : effect on [memory, reaction time effected in teenagers cell phone usage](#) ;
‘Mobile telephone use is associated with changes in cognitive function in young adolescents’; Abramson MJ, Benke GP, Dimitriadis C, Inyang IO, Sim MR, Wolfe RS, Croft RJ.; Department of Epidemiology & Preventive Medicine, School of Public Health & Preventive Medicine, Monash University

NOTE: the authors allege that the cognitive decrease found in teenagers doing cell phone texting is Not a result of RF exposure. They assume the decrease is related to some other cause. Cell phones emit a strong pulse of RF/microwave radiation around the body of user at time of message delivery, activation and receipt of message. That specific cloud of radiation should NOT be dismissed as inconsequential during texting.

Latvia, Russia, 1999: School children living near a radio station [suffered reduced motor function, memory and attention spans](#)

Motor and psychological functions of school children living in the area of the Skrunda Radio; Location Station in Latvia; A. A. Kolodynski and V. V. Kolodynska; Institute of Biology, Latvian Academy of Sciences, 1999

Russia, 2011 - Severe [Cognitive decline children 7-12 yrs of age using various Mobile Communication devices](#) in 4 yr study span *Psychophysiological Indicators for Child Users of Mobile Communications Devices: 1) Overview of Present State of the Problem and 2) Results of 4-Year Monitoring of Cognitive, Memory and Other Functions in 196 Children Ages 7-12 who used Mobile Communications Devices*; N. I. Khorseva, Yu. G. Grigoriev, N. V. Gorbunova ; **Institution of the Russian Academy of Sciences N. M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, 119334 Russia; sheridan1957@mail.ru ; Radiation Biology. Radiation Ecology. 2011. Volume 51, No.5, p.611-616**

Brazil, (2011) - Living within [100m of cell tower raised the cancer incidence by 35%](#) compared to populations living further away having lower microwave radiation levels.

Brazilian scientists have confirmed the results of earlier Austrian, German and Israeli studies by finding that living within 100 meters of a cell phone tower raises your cancer risk by 35%.

Adilza C. Dodea, b, e, , Mônica M.D. Leão, , Francisco de A.F. Tejed, Antônio C.R. Gomese, Daiana C. Dodee, f, Michael C. Dodee, Cristina W. Moreirab, Vânia A. Condessab, Cláudia Albinattib and Waleska T. Caiaffag; Minas Methodist University Center Izabela Hendrix, Belo Horizonte City, Minas Gerais State, Brazil

Germany, 2004: [A three-fold increase in the incidence of malignant tumours](#) A three-fold increase in the incidence of malignant tumours was found after 5 years exposure in people living 400 metres from a mobile phone mast. ***The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer***; Horst Eger, Klaus Uwe Hagen, Birgitt Lucas, Peter Vogel, Helmut Voit Published in Umwelt·Medizin·Gesellschaft 17,4 2004,

US & Hungary 2009: [Sperm damage studies from cell phones in pockets](#)
Environmental Health Trust Article; 2009

Argentina, 2010: [Damage of Sperm vitality from laptops](#) from laptops;
Laptop, Wi-Fi radiation may affect male fertility; Conrado Avendaño, a biochemist specializing in andrology, in collaboration with Ariela Mata, reproductive biology specialist and César Sánchez Sarmiento; Nascentis Medical Center,; (2010)

Israel, 2000: [Cancer in radar technicians](#) exposed to radio/microwave radiation;
‘Cancer in radar technicians exposed to radiofrequency/microwave radiation: sentinel episodes’;
Richter E, Berman T, Ben-Michael E, Laster R, Westin JB.
SourceUnit of Occupational and Environmental Medicine, Hebrew University-Hadassah Medical School; 2000

US, 2002: Higher incidence of [ALS, Parkinsons in Electrical occupations](#);
Occupational exposure to magnetic fields in case-referent studies of neurodegenerative diseases;
Noonan CW, Reif JS, Yost M, Touchstone J.; Source Department of Environmental Health, Colorado State University; 2002

XII A. 2) LAB CONTROLLED STUDIES: NEUROBEHAVIORAL CHANGES

Lab controlled studies often use cell phones to examine their RF bio-effects. Other times the cell phone is used as a proxy for an RF emitter because of the ease to ascertain the frequency and emission strength. The cell phone often does not rest on the ear or body of the subject, but kept a few centimeters distant from the subject. The emission strength can then be a relative calculation if not actually measured.

US & Sweden, 2007: [headaches & sleep delay problems](#);

'The Effects of 884MHz GSM Wireless Communication Signals on Self-reported Symptoms and Sleep | An Experimental Provocation Study'; Bengt Arnetz, et al.; Wayne State University & Uppsala University, USA, 2Karolinska Institutet, Sweden; 2007

US (2012) Mice exposed to Cell phone radiation in early Utero gestation [had impaired memories, hyperactive and less anxious](#)

Fetal Radiofrequency Radiation Exposure From 800-1900 Mhz-Rated Cellular Telephones Affects Neurodevelopment and Behavior in Mice: Tamir S. Aldad, Geliang Gan, Xiao-Bing Gao; & Hugh S. Taylor Scientific Reports 2, Article number: 312 doi:10.1038/srep00312 Received 13 July 2011 Accepted 17 February 2012 Published 15 March 2012

Israel, 2006: [response time delayed](#) ;

'Effects of radiofrequency radiation emitted by cellular telephones on the cognitive functions of humans'; Eliyahu I, Luria R, Hareuveny R, et al.; Source Radiation Safety Division Soreq NRC, Yavne, Israel; 2006

Austria, 2007: [Meta-analysis of lab controlled Neurobehavioral studies: significant changes in reaction time, working memory](#) ;

'A meta-analysis for neurobehavioural effects due to electromagnetic field exposure emitted by GSM mobile phones'; Barth A, Winker R, Ponocny-Seliger E, et al.; Source Institute of Management Science, Division Ergonomics and Organization, Vienna University of Technology; 2007

Switzerland, 2002 : [Sleep brain wave alterations](#) occur only from pulse modulating frequencies; ***'Electromagnetic fields, such as those from mobile phones, alter regional cerebral blood flow and sleep and waking EEG'***; Huber R, Treyer V, Borbély AA, et al.; Source Institute of Pharmacology and Toxicology, University of Zurich; 2002

XII A. 3) LAB CONTROLLED STUDIES: CELLULAR / CHEMICAL & METABOLIC CHANGES & POSSIBLE HEALTH EFFECTS

U.S. 2011, Effects Possible: *Neurological disorders, Brain Cancer:* Cellphone use tied [increase brain glucose activity](#). Leads to the creation of free radicals which in excess can damage healthy cells or set off an inflammatory response;

'Cellphone Use Tied to Changes in Brain Activity'; Dr. Nora D. Volkow, director of the National Institute on Drug Abuse; National Institute of Health; 2011

Hungary 2009: Effects seen on [circulation, blood pressure, anxiety](#) ;

'900 MHz (GSM) exposure and EEG, cerebral circulation, and auditory & evoked brainstem responses in humans'; Res. Inst. for Radiobiology & Radiohygiene, Hungary; 2009

Japan 2009 : Effects possible: Diabetes, Cardiovascular disorders . RF disturbs calcium ion exchange process, activation of cyclic GMP & Nitric Oxide (NO) . Authors suggest that radio frequency activates NO synthase to induce vasodilatation.

'10 MHz (PW/burst) exposure any analysis of vasodilation in tissues and tissue homogenates'; Principal Investigator Gunma University School of Medicine, Maebashi-shi; 2009

Turkey 2005 & 2007: Effects possible: Diabetes; Thyroid , Reproductive and Cardiovascular disorders.

Rats RF exposed showed stimulation to ROS (Reactive Oxygen Species) indicating oxidative stress and depression of various Thyroid hormones at mostly at RF levels below safety guidelines.

Protection afforded by Vit C & E antioxidants.

900 MHz radiofrequency-induced histopathologic changes and oxidative stress in rat endometrium: protection by vitamins E and C ; Guney M, Ozguner F, et al.; Department of Obstetrics and Gynecology, Faculty of Medicine, Suleyman Demirel University; 2007

Effects of 900 MHz electromagnetic field on TSH and thyroid hormones in rats. ; Koyu A, Cesur G, et al.; Source Department of Physiology, Suleyman Demirel University, School of Medicine,; 2005

Brazil 2006: Effects possible: Cancer and Immune dysfunction . No rise in oxidative stress hormones but rise in Micronuclei in fetal rat ;

'Ultra high frequency-electromagnetic field irradiation during pregnancy leads to an increase in erythrocytes micronuclei incidence in rat offspring'; Ferreira AR, Knakievicz T, et al.; Source Centro de Estudos em Estresse Oxidativo, Departamento de Bioquímica, ICBS, Universidade Federal do Rio Grande do Sul, Porto Alegre; 2006

India 2009: Adverse effects possible: Reproduction changes Sperm motility reduced ;

'Radio frequency electromagnetic radiation (RF-EMR) from GSM (0.9/1.8GHz) mobile phones induces oxidative stress and reduces sperm motility in rats'; Mailankot M, Kunnath AP, et al.; Source Department of Biochemistry, Melaka Manipal, Medical College; 2009

Austria 2008: Adverse effects possible: Cancer & immune dysfunction ; RF radiation Induced negative micronuclei in specific blood cell lines but not others.

'Radiofrequency electromagnetic fields (UMTS, 1,950 MHz) induce genotoxic effects in vitro in human fibroblasts but not in lymphocytes'; Schwarz C, Kratochvil E, Pilger A, Kuster N, et al.; Source Division of Occupational Medicine, Medical University of Vienna, 2008

Austria 2010: Adverse effects possible: Diabetes, cardiovascular disorders ; Certain stress and sugar metabolizing proteins and enzymes were activated in Humans to exposure from current field strength microwave frequencies;

'Effects of exposure to GSM mobile phone base station signals on salivary cortisol, alpha-amylase, and immunoglobulin A'; Augner C, Hacker GW, Oberfeld G, et al.; Source IGGMB-Research Institute for Frontier Questions of Medicine and Biotechnology, Salzburg Federal Hospital-University Clinics of the Paracelsus Medical Private University, 2010

Greece 2008: Adverse Reproductive effects: Reproductive decline & cellular damage in certain breed of Insects exposed for generations to cell phone frequencies.

MOBILE TELEPHONY RADIATION EFFECTS ON LIVING ORGANISMS; Dimitris J. Panagopoulos* and Lukas H. Margaritis; Department of Cell Biology and Biophysics, Faculty of Biology, University of Athens; 2008

Greece 2012: Study showed [13 proteins in the Brain effected](#) by exposure to direct exposure to RF/Microwave radiation, specifically Cordless phones in this research. Study states proteins effected can have correlation to headaches, sleep disturbance, fatigue, memory deficits, and brain tumor long-term induction under similar exposure conditions. (2012)

Brain proteome response following whole body exposure of mice to mobile phone or wireless DECT base radiation. Adamantia F. Fragopoulou, George Th. Tsangaris, Lukas H. Margaritis Electromagnetic Biology and Medicine

Sweden2002: Adverse effects possible: Neurological diseases; breaching the [Blood Brain Barrier](#) allows toxins to enter brain.

‘Nerve Cell Damage in Mammalian Brain after Exposure to Microwaves from GSM Mobile Phones’; Leif G. Salford, Arne E. Brun, et al.; Department of Neurosurgery, Department of Medical Radiation Physics, Department of Applied Electronics, Lund University, The Rausing Laboratory and Lund University Hospital; 2002

US 2003: Effects: Higher sensitivities to pollen; Blood & pollen skin test revealed [higher allergy response](#) under use of cell phones

‘Allergic Reactions Enhanced by Cell Phone Use’; Darin Ingels, ND, MT (ASCP); Bastyr Center for Natural Health, Kirkland, WA; 2003

XII A. 4) WILDLIFE AND PLANT STUDIES **Wireless Radio/Microwave Radiation effect**

Spain 2007 & 2010: Reproductive decline of house sparrow and tadpole exposed to cell tower radiation

[“Mobile phone mast effects on common frog \(Rana temporaria\) tadpoles: the city turned into a laboratory”](#);; Balmori A.; SourceC/Navarra; 2010

[“The urban decline of the house sparrow \(Passer domesticus\): a possible link with electromagnetic radiation”](#) Balmori A, Hallberg O., Direccion General del Medio Natural, Consejería de Medio Ambiente; 2007

US 2010: Rocky Mountain [Aspen tree growth stunted](#) from environmental radiowaves

‘Lyons woman studies how radio waves affect trees’; The Daily Camera, Boulder Co, July 2010

India 2010: [Bees do not return to Hive](#) exposed to cell phone radiation

‘Changes in honeybee behaviour and biology under the influence of cellphone radiations’;

Ved Parkash Sharma and Neelima R. Kumar;; Department of Environment and Vocational Studies, and Department of Zoology, Panjab University; August 2010;

[CURRENT SCIENCE, VOL. 98, NO. 10, 25 MAY 2010 1376](#)

US: US Fish & Wildlife review of studies on [Reduced Bird Population, Bees colony Collapse Disorder](#) and Wildlife.

Switzerland 2010: [Honey bee piping sounds](#) increase in the vicinity of active cell phone exposure. An indication of active swarming. 2010

“Mobile phone-induced honeybee worker piping”, Daniel FAVRE, Scientific collaborator in the Laboratory of Cellular Biotechnology (LBTC), Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland; Apiary School of the City of Lausanne, Chemin du Bornalet 2, CH-1066, Épalinges, Switzerland

Belguim (2013) [Ants direct exposure to EMF waves](#) lose their ability to collect food and respond to alarm pheromones leading to substantially reduced colony.

Food collection and response to pheromones in an ant species exposed to electromagnetic radiation.

Marie-Claire Cammaerts, Zoheir Rachidi, François Bellens, Philippe De Doncker. Electromagnetic Biology and Medicine. Published online Jan 15, 2013.

A. 5. CLIMATE

The Demeter Project

: http://www.lpce.cnrs-orleans.fr/www_experim/experim_espace_demeter_details_eng.php

The Findings o Demeter Satellite project – *see attachments*.

XII B. 3) SCIENTIFIC LITERATURE REVIEWS & REPORTS OF RF RESEARCH

(Reports analyzing the results RF/MW radiation research studies to date, conducted by scientific professionals and peer review panels)

National Academy of Science proposal, 2008 - “Identification of Research Needs Relating to Potential Biological or Adverse Health Effects of Wireless Communication” reviewing the current state of the science evidence and identifying research needs for RF/Microwave Wireless radiation emissions. http://www.nap.edu/catalog.php?record_id=12036#toc

“Mobile Telecommunications & Health” -ECOLOG 2000 Report - sponsored by T Mobile & Duetsches Telecom. Although sponsored by telecommunication company the report shows, even in year 2000, a great deal of evidence of adverse effects by wireless RF/microwave radiation. The report was suppressed for 10 years until a group of European advocates discovered it and translated it into English. <http://www.hese-project.org/hese-uk/en/papers/ecolog2000.pdf>

European Government & Telecom Report, 2008 summarizing 85 studies showing toxic effects of cell phone simulation frequencies on host of biological factors: cellular processes & repair, tumors, cardiovascular, sleep, cancers etc. – very comprehensive.

http://www.mobilfunkstudien.org/downloads/df_studienliste_referenzen.pdf

Sperm Damage, Cancer & Reduced fertility Studies, 2010, summarized by Powerwatch, UK
<http://electromagnetichealth.org/wp-content/uploads/2011/02/Research-1.pdf>

Bio-Initiative Report , 2012: A Scientific Literature Review & Analysis showing Biological Effects of RF/Microwaves & ELF electromagnetic radiation, recommending new emission thresholds, conducted by over 5 notable scientists in the field of RF bioeffect research
www.bioinitiative.org

“Combined biological and health effects of electromagnetic fields and other agents in the published literature.”

REPORT: Review of Research of Combined Effects EMFs & other agents on physiological and health effects. Review conducted by 2 US scientists Georgia Tech Univ in Virginia & staff Dr at Research for Defense Analysis in Virginia/
(http://stip.gatech.edu/wp-content/uploads/2013/01/EMF-SYNERGY_JOURNAL_PAPER_TFSC_3_REVMOD6.pdf).

Cell towers and Antenna Arrays - Biological effects 2010, comprehensive review of science, analyzed Dr. Henry Lai, bioengineering dept, Univ of Wash, Seattle, & Blake Levitz, former science writer NY Times.
[published National Research Council of Canada](#)

Scientific Resolutions by large body of International Scientists, Medical Professionals, citizen organizations advocating for Greater Precautionary Measures, Research and Regulation on Wireless Technology

[The Freiburger Appeal 2002](#)

A growing group of 50 + German Environmental physicians/scientists appealing government and industry for more research and precautionary measures RF/Microwave emitting devices, The appeal is based on their observation of patient illnesses through the preceding years

[Porto Alegre Resolution 2009](#)

[The Venice Resolution 2008](#)

[Benevento Resolution 2006](#)

[The Catania Resolution 2002](#) (bottom of page)

[The Salzburg Resolution 2000](#)

[American Academy of Environmental Medicine 2012](#) finds Electromagnetic and Radiofrequency Fields effect on Human Health. Requests restrained use of wireless technologies and alternatives to Smart Utility meters.

[American Academy of Pediatrics, July 2012](#) called for formal Inquiry into radiation standards of cell phones and other wireless products.